

REMARKS

This paper is responsive to the Office Action. By this paper, claims 13 and 14 are cancelled, claims 1-3, 6, 9, and 15-17 are amended, and new claims 22-32 are added. Claims 1-12 and 15-32 are now pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

I. Amended Drawings

The Examiner objects to Figure 1 on the grounds that the figure does not include a legend such as --Prior Art--. Applicants submit herewith new Figure 1 which includes a "(Prior Art)" legend as suggested. Also enclosed is a redlined copy of Figure 1 showing the change being made. Figures 2 and 4 have also been amended to correct minor informalities in the drawings regarding the reference numbers.

II. CLAIM REJECTIONS

A. Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over *Li* (U.S. Patent No. 6,836,575) in view of *Gilliland et al.* (U.S. Patent Application No. 2004/0013368).

In view of the above amendments, claim cancellations, and newly presented claims, it is believed that the rejection under 35 U.S.C. § 103(a) over *Li* in view of *Gilliland et al.* is now moot and should accordingly be withdrawn.

Claims 1, 9, 17, and 22, as herein amended, are allowable over the cited references because the cited references does not teach, suggest, nor make obvious each and every element set forth in independent claims 1, 9, 17, and 22. The present application claims priority as a continuation-in-part application to U.S. Patent Application Serial No. 10/617,006 (the “‘006 Application”) entitled “SINGLE-FIBER BI-DIRECTIONAL TRANSCEIVER”, filed on July 10, 2003. On March 2, 2005, a non-final office action was issued by the U.S. Patent and Trademark Office for the ‘006 Application. In that office action, Examiner Kalivoda set forth the following:

Claims 16-18 and 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 16, a review of prior art failed to make obvious, disclose or fairly suggest a circulator comprising at least one mirror in optical communication with the plurality of polarization beam splitters, garnets and at least one wave plate in addition to the accompanying features of the claim.

Regarding claim 17, a review of prior art failed to make obvious, disclose or fairly suggest a circulator comprising a waveplate coupled to the beam splitter in addition to the accompanying features of the claim.

Regarding claim 18, a review of prior art failed to make obvious, disclose or fairly suggest a circulator comprising a second beam displacer optically coupled to a second wave plate in addition to the accompanying features of the claim.

Regarding claim 31, a review of prior art failed to make obvious, disclose or fairly suggest a core comprising a garnet disposed between a first and second wedge in addition to the accompanying features of the claim.

(emphasis added).

It is well established that “every limitation positively recited in a claim must be given effect in order to determine what subject matter that claim defines.” *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970); *See also In re Wilson*, 165 USPQ 494 (CCPA 1970) (“all words in a claim must be considered in judging the patentability of that claim against the prior art”). For similar reasons to those set forth by Examiner Kalivoda in regards to claims 16, 17, 18, and 31 of the ‘006 Application, independent claims 1, 9, 17, and 22 of the present application are also

believed to be in allowable condition. Moreover, the examiner has not established obviousness of the amended claims.

For example, claim 1 is allowable at least for the reason that the office action has failed to establish that the cited references teach, suggest, or make obvious a circulator comprising at least one mirror in optical communication with a plurality of polarization beam splitters, garnets and at least one wave plate in addition to the all the other elements of claim 1. Claim 9 is allowable at least for the reason that the office action has failed to establish that the cited references teach, suggest, or make obvious a waveplate coupled to a beam splitter in addition to the accompanying features of the claim. Claim 17 is allowable at least for the reason that the office action has failed to establish that the cited references teach, suggest, or make obvious a second beam displacer optically coupled to a second wave plate in addition to the accompanying features of the claim. Claim 22 is allowable at least for the reason that the office action has failed to establish that the cited references teach, suggest, or make obvious garnet disposed between a first and second wedge. Thus, claims 1, 9, 17, and 22 are allowable because the office action has failed to establish that the cited references show or render obvious every element of claims 1, 9, 17, and 22.

Because claims 2-5, 7, 8, 10-12, 15, 16, 18-21, and 23-26 depend from one of independent claims 1, 9, 17, or 22, and as a result include the elements of the claim from which they respectively depend, claims 2-5, 7, 8, 10-12, 15, 16, 18-21, and 23-26 are allowable at least due to their dependency on an allowable base claim.

Claim 6, as currently presented, is also allowable over the cited references because the office action has failed to establish that the cited references teach, suggest, or make obvious each and every element set forth in claim 6. Independent claim 6, as currently presented, recites the following:

6. A communications module comprising:
 - a module casing having an interior portion;
 - an optical circulator disposed within said interior portion, said optical circulator comprising:
 - a first port through which optical data is transmitted;
 - a second port through which optical data is received;
 - a third port through which optical data is both transmitted and received;
 - a first optical wedge optically coupled to said first port and said second port;

a Faraday rotator optically coupled to said first wedge, said Faraday rotator rotating a polarization of a transmit signal and a receive signal passing therethrough;

a second optical wedge optically coupled to said Faraday rotator and to said third port; and

an external magnet at least partially surrounding the first optical wedge, the Faraday rotator, and the second optical wedge.

(emphasis added).

At least for the reason that the office action has failed to establish that the cited references teach, suggest, or make obvious “an external magnet at least partially surrounding the first optical wedge, the Faraday rotator, and the second optical wedge” along with each and every other element of claim 6, the Applicants respectfully believe that claim 6 is allowable.

Because claims 27-32 depend from independent claim 6, and as a result include all the elements of claim 6, claims 27-32 are allowable at least due to their dependency on an allowable base claim.

CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 22 day of September, 2005.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David A. Jones", with a stylized flourish at the end.

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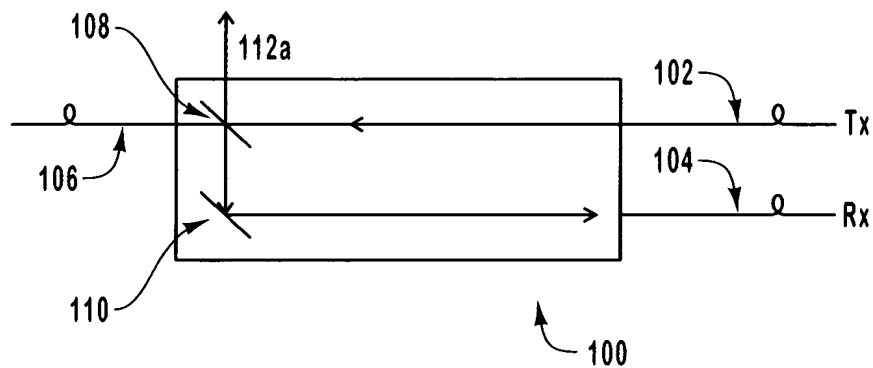


FIG. 1
 (Prior Art)

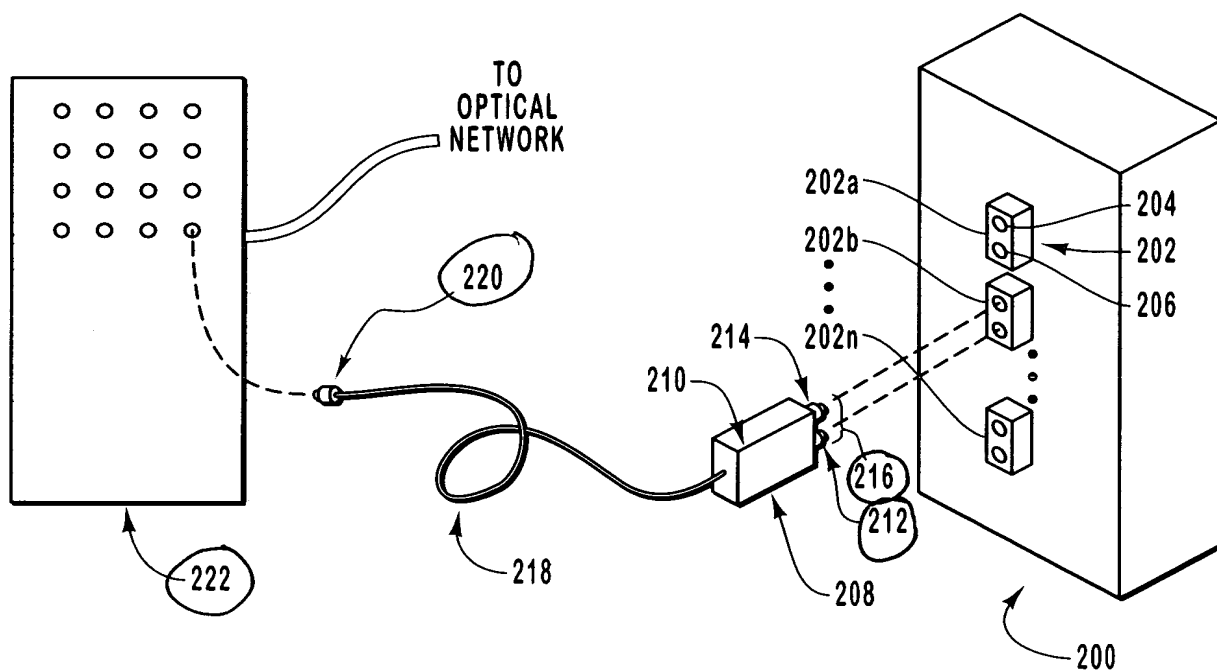


FIG. 2

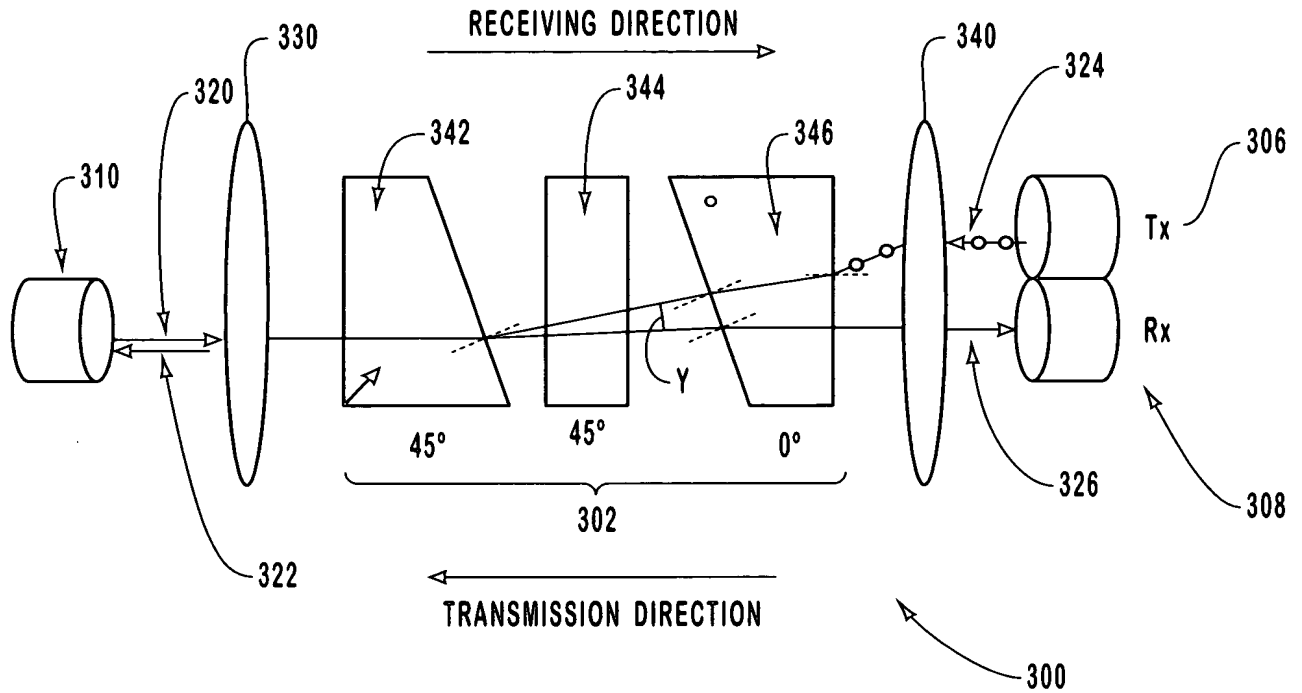


FIG. 3

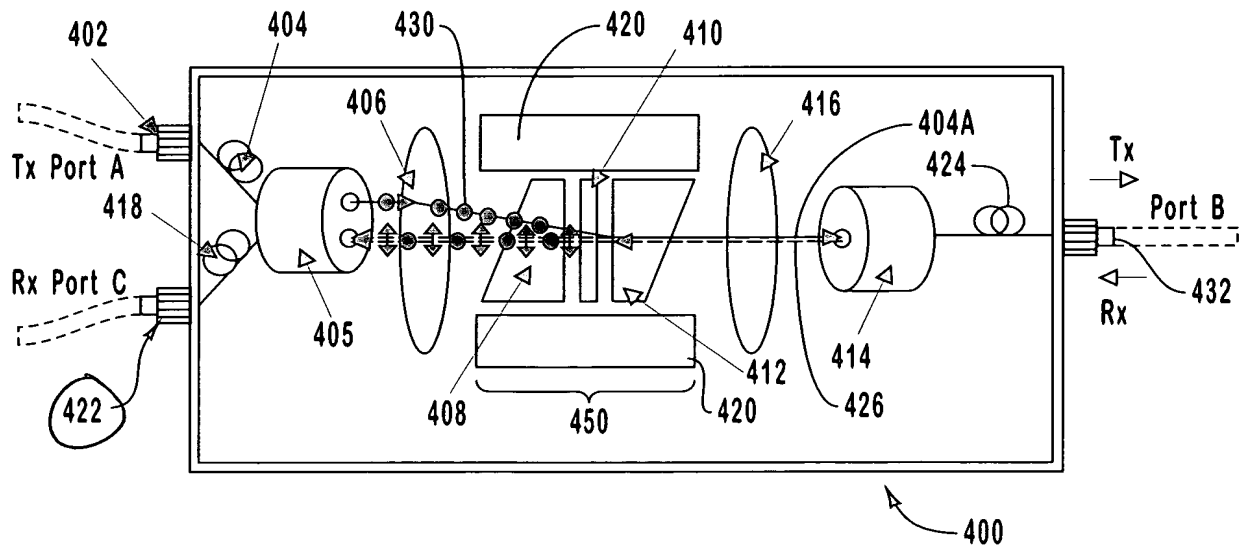


FIG. 4